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Systems

**IBM 3287 Printer
Models 1 and 2
Problem
Determination
Guide**

IBM
®

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Problem
Determination
Guide**



Preface

This Guide has been prepared to help you (the operator) determine the type of problem and how to correct it, when the 3287 Printer Models 1 and 2 is not operating properly. It is designed to save you time by pointing out possible causes for troubles that you can easily and quickly correct yourself.

Related Publications:

The following documents contain related information that may help diagnose problems and recover from error conditions:

- *IBM 3287 Printer Operator's Guide*, GA27-3150
- *IBM 3287 Printer Operator's Trouble Report*, GX27-2923
- *IBM 3287 Printer Component Description*, GA27-3153

How to Use This Guide

This *3287 Problem Determination Guide* is divided into six sections, each of which is completely independent.

Each section (identified by a black tab at the right edge of the page) is a chart that describes and illustrates how to make some quick checks on a failing 3287 Printer. If you follow the charts, you should be able to determine the problem in your printer and what action you should take (either to correct the problem or to call the 3287 service representative).

1 From the "Contents", on the following page, find the symptom that best describes the problem.

2 Follow the arrow to the black tab at the right edge of the page. Next, flip through the guide until you find the black tab that matches the one on the contents page.

3 On the first page of that section, read the instructions on "How to use", then find the type of problem you are having with your printer.

Second Edition (December 1978)

This is a major revision of and obsoletes, GA27-3150-0.

Changes are periodically made to the information herein; before using this publication in connection with the operation of IBM systems or equipment, refer to the *IBM System/370 Bibliography* (Order No. GC20-0001 and associated Technical Newsletters) for the editions that are applicable and current.

Publications are not stocked at the address given below; requests for IBM publications should be made to your IBM representative or to the IBM branch office serving your locality.

This manual has been written by the IBM System Communications Division, Publications Development, Department E02, P.O. Box 12195, Research Triangle Park, North Carolina 27709. A reader's comment form is provided at the back of this publication. If the form has been removed, comments may be sent to the above address. IBM may use or distribute any of the information you supply in any way it believes appropriate without incurring any obligation whatever. You may, of course, continue to use the information you supply.

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INTRODUCTION

This publication refers to Stage 1 and Stage 2 of the IBM 3287 Printer Models 1 and 2. Both stages of the printer perform identical functions; however the covers and operator panels are different in appearance. Throughout this publication the Stage 2 printer is used to illustrate the covers and operator panel. However, when it is necessary to describe a difference between the two stages in operator procedures, both the Stage 1 and Stage 2 printers are illustrated.

Refer to Figure 1 and Figure 2 for the Stage 1 and Stage 2 3287 Printer Models 1 and 2.

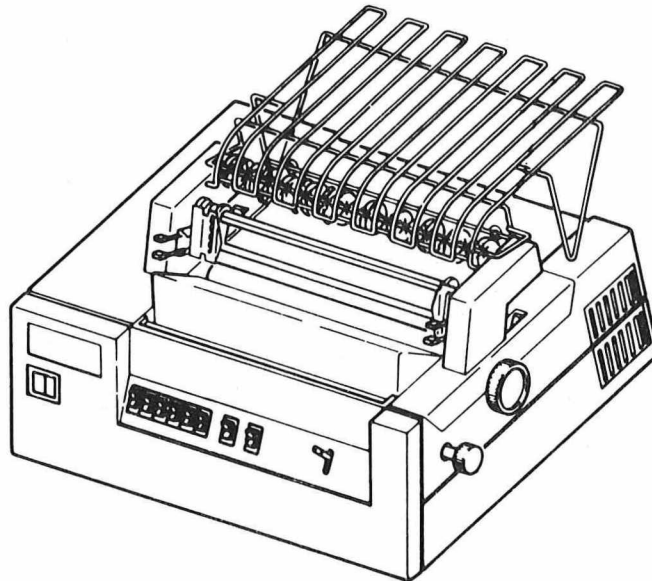


Figure 1. 3287 Printer (Stage 1 Printers)

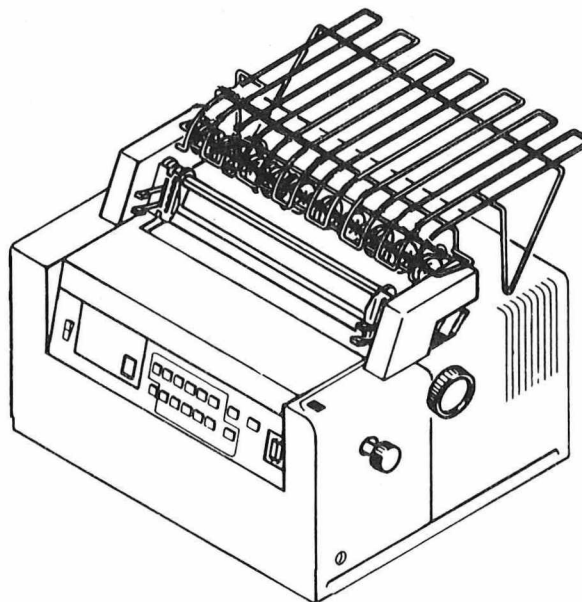
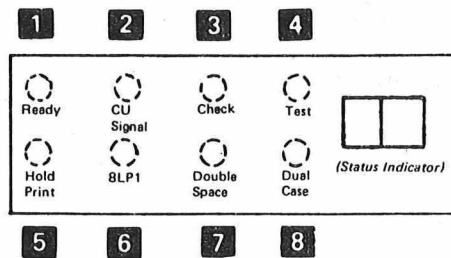


Figure 2. 3287 Printer (Stage 2 Printers)

Operator Panel Light Problems



How to use this section:

1 Find the name of the light in this column.

2 Find the problem you have, in this column.

3 Then take the action described in this column. (Whenever you are requested to press the Test switch, be sure the paper in the printer is at least 203.2 mm (8-inches) wide and at least 1.8 meter (6 feet) long, to provide enough space for the test to be printed out.)



Light



Read the following:

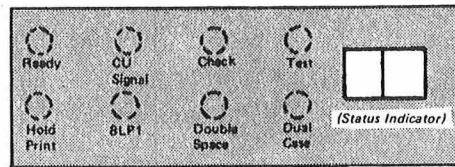


Then do this -

1 Ready	Ready light is not ON. (For normal printing this light should be on. <i>If your printer is operating in SNA Character String (SCS) mode, the Ready light blinks when the printer is in the hold print condition. If any other light is on at this time, follow the action described for that light being on.</i>)	- Check to see that: - The 3287 is plugged in. - The 3287 is turned on (the Power switch is set to ON). - The paper forms are properly installed. - Enable Print switch is pressed. - If you still have a problem: - Push the Test switch to obtain a printout (save this for the service representative). - Fill out an Operator's Trouble Report. - Call the 3287 service representative.
2 CU Signal	CU Signal light is not ON. (For normal printing this light should be on.)	- Check to see that: - The device cable that connects your printer with the System Controlling Unit (SCU) is plugged in securely at the printer and at the SCU. - The SCU operator has turned power on at the control unit. - If you still have a problem: - Push the Test switch to obtain a printout (save this for service representative.) - Fill out an Operator's Trouble Report. - Call the 3287 service representative.
3 Check	Check Light is ON. (If this light is on, it indicates a problem. The number or character displayed on the Status Indicator ☐ shows the type of problem.)	Go to the "Status Indicator" section of this guide and follow the directions for the number or character being displayed.

Light	Read the following:	Then do this -
4 Test	Test light is ON. (For normal printing this light should be off.)	1. Push the Test switch to obtain a printout. 2. Did you get a printout and did the Test light go off at the end of the printout? YES - Continue normal operation. NO - a. Fill out an Operator's Trouble Report and save the test that printed out, for the service representative. b. Call the 3287 service representative.
5 Hold Print	Hold Print light is On. (For normal printing this light should be off.) Is the Hold Print Light blinking? → Is the Hold Print light on continuously? →	If it is blinking, do the following: 1. Momentarily press the Reset Alternate switch. 2. Press the Enable Print switch. 3. If the Hold Print light is still on, or blinking: a. Push the Test switch to obtain a printout (save this for the service representative). b. Fill out an Operator's Trouble Report. c. Call the 3287 service representative. If it is on continuously, do the following: 1. Press the Enable Print switch. 2. If the Hold Print light is still on: a. Push the Test switch to obtain a printout (save this for the service representative). b. Fill out an Operator's Trouble Report. c. Call the 3287 service representative.
6 8 LPI	When ON - 8 lines per inch should be printed. (If the Double Space light is on, 4 lines per inch should be printed.) When OFF - 6 lines per inch should be printed. (If the Double Space light is on, 3 lines per inch should be printed.)	If the number of lines being printed do not agree with the 8 LPI light, do the following: <i>Note: If your printer is operating in SCS (SNA Character String) mode, 8 LPI is controlled by the System Controlling Unit and may change during printing.</i> a. Push the Test switch to obtain a printout (save this for the service representative). b. Fill out an Operator's Trouble Report. c. Call the 3287 service representative.
7 Double Space	When ON - Print lines are double-spaced. Either four lines (for 8 LPI), or three lines (for 6 LPI) are printed per inch. When OFF - Print lines are single-spaced.	If the spacing does not agree with the Double Space light, do the following: a. Push the Test switch to obtain a printout (save this for the service representative). b. Fill out an Operator's Trouble Report. c. Call the 3287 service representative.
8 Dual Case	When ON - Your printer should print alphabetic characters in upper and lowercase. When OFF - Your printer should print alphabetic characters in upper case only.	If the printing does not agree with the Dual Case light, do the following: 1. Push the Test switch to obtain a printout (save this for the service representative). 2. Fill out an Operator's Trouble Report. 3. Call the 3287 service representative.

Status Indicator



How to use this section

- 1** Find the number that is displayed on your status indicator in this column.



- 2** Find the problem you have in this column.



Then, take the action described in this column. (Whenever you are requested to press the Test switch, be sure the paper in the printer is at least 203.2 mm (8-inches) wide and 1.8 meter (6 feet) long, to provide enough space for the test to be printed out.)



Number Displayed

Check the following:

Then do this -

0 1	Is paper installed in the printer? or Is the paper that is in the printer torn? Is the paper positioned at the left side of the printer, next to the alignment line?	If there is no paper, or if the paper is torn: 1. <u>Press the Hold Print switch</u> (0 1 disappears). 2. Install more paper forms. (For details on installing paper, refer to Chapter 4 of the <i>IBM 3287 Printer Models 1 and 2 Operator's Guide</i>.) 3. Press the Buffer Reprint switch. One of the following messages is displayed: 0 8 , 0 9 , 6 7 , or (blank display). 4. Press the Enable Print switch. NO - 1. <u>Press the Hold Print switch</u> (0 1 disappears). 2. Align the paper. 3. Press the Enable Print switch. YES - 1. Push the Test switch to obtain a printout (save this for the service representative). 2. Fill out an Operator's Trouble Report. 3. Call the 3287 service representative.
0 7	No checking required.	1. Push the Reset switch, then try to resume normal operation. 2. Did the 0 7 error condition return? NO - Continue normal operation. YES - a. Push the Test switch to obtain a printout (save this for the service representative). b. Fill out an Operator's Trouble Report. c. Call the 3287 service representative.
0 8	No checking required. (0 8 indicates that either (1) the printer has been in the hold print condition for over 10 minutes, or (2) the Buffer Reprint switch was pressed while the printer was operating in SCS Mode.)	Press the Enable Print switch.

Number Displayed

Check the following:

Then do this -

0 9	Check the operation you are trying to perform. (0 9 indicates that you have attempted to perform an improper operation. For example: setting the wrong switches or trying to perform an operation that requires a feature that is not installed on your printer.)	Verify that the operation you are trying to do is a valid operation (0 9 disappears).
2 7 (continued)	Is the CU signal light ON? YES → NO →	1. Push the Reset switch, then try to resume normal operation. 2. Did the 2 7 error condition return (it may take 2 or more minutes to return) - NO - Continue normal operation. - YES - a. Push the Test switch to obtain a printout (save this for the service representative). b. Fill out an Operator's Trouble Report. c. Call the 3287 service representative. 1. Make sure that power is turned on at the System Controlling Unit. 2. Make sure that the device cable that connects your printer with the System Controlling Unit is plugged in securely at both the printer and the System Controlling Unit. Stage 1 Printer Twist the plug until it locks snugly on the connector. The diagram illustrates the correct way to connect a device cable to a power cord. A hand is shown twisting a plug into a connector. The plug is labeled 'connector' and the cable is labeled 'Device Cable'. The power cord is labeled 'Power Cord'. The diagram shows the plug being twisted until it locks snugly on the connector. 3287 Printer (Stage 1 Printers)

Number Displayed

Check the following:

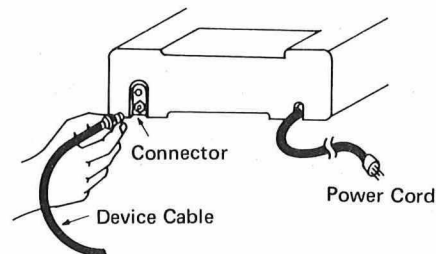
Then do this -

(continued)

2 7

Stage 2 Printer

Twist (↻) the plug until it locks snugly on the connector.

**3287 Printer (Stage 2 Printers)**

3. Push the Test switch to obtain a printout.
4. Did the 2 7 error condition return (it may take 2 or more minutes before it returns)?
 - NO - Continue normal operation.
 - YES - If there is another 3287 Printer connected to the same System Controlling Unit as yours, check to see if that printer is also having a similar problem.
 - If so - The problem appears to be at the System Controlling Unit. Contact the System Controlling Unit operator to correct the problem.
 - If not - Fill out an Operator's Trouble Report and call the 3287 service representative (save the test printout from step 3 for the service representative).

3 1

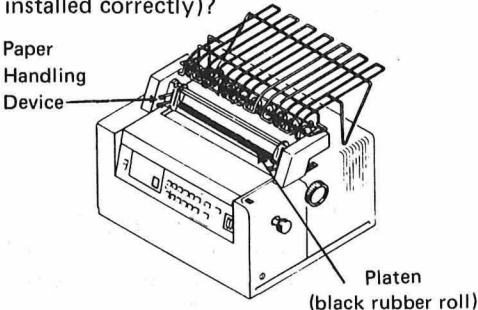
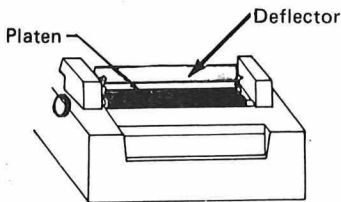
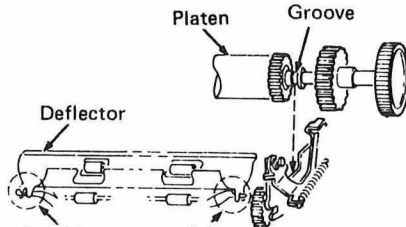
Is paper installed in the printer?

NO →

1. Install more paper forms. (For details on installing paper, refer to Chapter 4 of the *IBM 3287 Printer Models 1 and 2 Operator's Guide*.)
2. Press the Enable Print switch.
3. Did the 3 1 disappear.
 - YES - Continue normal operation.
 - NO -
 - a. Push the Test switch to obtain a printout (save this for the service representative.).
 - b. Fill out an Operator's Trouble Report.
 - c. Call the 3287 service representative.

(continued)

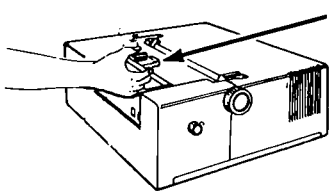
STATUS 00

(continued) 4 3	Is the platen loose (not installed correctly)? or Is the paper handling device loose (not installed correctly)?  Paper Handling Device Platen (black rubber roll)	1. <u>Press the Hold Print switch.</u> 2. Reinstall as described in Chapter 5 of <i>IBM 3287 Printer Models 1 and 2 Operator's Guide</i>. 3. Press the Reset switch. 4. Press the <u>Enable Print</u> switch. 5. Does the 4 3 error return? - NO - Resume normal operation. - YES - a. Push the Test switch to obtain a printout (save this for the service representative). b. Fill out an Operator's Trouble Report. c. Call the 3287 service representative.
4 4 4 5 4 6	No checking required.	Do the following: 1. Push the Test switch to obtain a printout (save this for the service representative). 2. Fill out an Operator's Trouble Report. 3. Call the 3287 service representative.
4 7 (continued)	Is the ribbon or form jammed? Are both the platen and paper deflector installed securely in the printer?  Platen Deflector	1. <u>Press the Hold Print switch.</u> 2. Remove the jam. (If necessary, replace the ribbon or form; refer to Chapter 4 of <i>IBM 3287 Printer Models 1 and 2 Operator's Guide</i> for details.) 3. Press the Reset switch. 4. Does 4 7 return? - NO - Continue normal operation. - YES - a. Push the Test switch to obtain a printout (save this for the service representative.) b. Fill out an Operator's Trouble Report. c. Call the 3287 service representative. If they are not, insert them so that both ends are engaged and seated firmly, as shown.  Platen Groove Deflector (position accurately)

Number Displayed

Check the following:

Then do this -

(continued) 4 7	Physically take hold of the print head and move it back and forth across the printer.  Does the ribbon advance when you move the print head back and forth across the printer? None of the preceding conditions are present.	If the ribbon fails to advance, do the following: - Fill out an Operator's Trouble Report. - Call the 3287 service representative. 1. Push the Reset switch, then try to resume normal operation. 2. If you still have a problem: - Push the Test switch to obtain a printout (save this for the service representative). - Fill out an Operator's Trouble Report. - Call the 3287 service representative.
5 0 5 1 5 2	No checking required.	1. Push the Reset switch. 2. Did the 5 0, 5 1, or 5 2 error condition return? NO - Resume normal operation. YES - - Push the Test switch to obtain a printout (save this for the service representative). - Fill out an Operator's Trouble Report. - Call the 3287 service representative.
5 9	No checking required. (5 9 indicates that you pressed the Cancel Print switch to cancel the message currently being printed.)	No action required. (5 9 disappears before your printer starts printing the next message sent from the control unit.)
6 1	No checking required. (6 1 indicates that you pressed the PA1 switch.)	No action required. (6 1 disappears when the program at the control unit has started.)
6 2	No checking required. (6 2 indicates that you pressed the PA2 switch.)	No action required. (6 2 disappears when the program at the control unit has started.)
6 3	No checking required. (6 3 indicates that the control unit is requesting that you press either the PA1 or PA2 switch.)	1. <u>Press the Hold Print switch.</u> 2. Press the PA1 or PA2 switch (which switch you press depends upon the instructions from your programming department). 3. Press the Enable Print switch. (6 3 disappears automatically.)

Number Displayed

Check the following:

Then do this -

6 7	No checking required. (6 7 indicates that you pressed the Buffer Reprint switch.)	Press the Enable Print switch. (6 7 disappears)
X X XX represents any other number that might be displayed.	No checking required.	1. Push the Test switch to obtain a printout (save this for the service representative). 2. Did you get a printout and did the Test light go off? - YES - Try to resume normal operation. If the same error condition occurs, fill out an Operator's Trouble Report and call the 3287 service representative. - NO - a. Fill out an Operator's Trouble Report. b. Call the 3287 service representative.

Switch Problems

The printer operation switches on the 3287 Stage 1 (Figure 3) are of the momentary dual pushbutton type. The Stage 2 (Figure 4) Printer Operation switches are of the momentary single pushbutton type. However, the functions of the switches are exactly the same. Therefore to illustrate and explain the use of the switches, the 3287 Stage 2 panel is used as an example.

Notes:

1. The Stage 1 Power ON/OFF switch is a two position toggle switch. The Stage 2 Power ON/OFF switch is a rocker CB (circuit breaker) type. The function of both switches is the same.
2. The Selector Switches and Power ON/OFF switch is located on the front panel of both the Stage 1 and Stage 2 Printers.

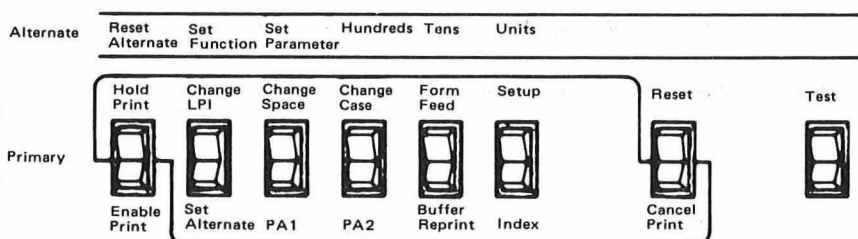


Figure 3. Switches, Stage 1 Printers

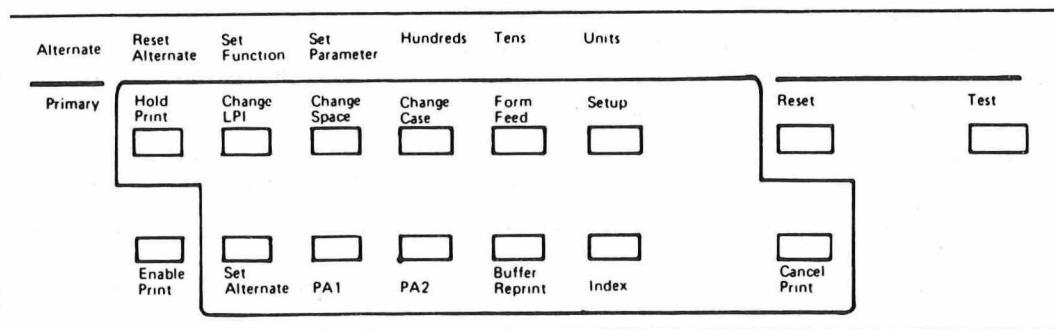


Figure 4. Switches, Stage 2 Printers

How to use this section

1 Find the name of the switch in this column.

2 From this section, read the description of *what should take place* when the switch is pushed. If this does not take place, (1) fill out an Operator's Trouble Report form, and (2) call the 3287 service representative.



Switch



What should take place -

Hold Print	Hold Print - Ready light goes off (if your printer is operating in SCS mode, the Ready light blinks at this time). - Hold Print light comes on. - Printing stops - Print head moves to the left side of the printer. - The following switches become active (depending upon the features installed on your printer): Change LPI/Set Alternate, Change Space/PA1, Change Case/PA2, Form Feed/Buffer Reprint, Setup/Index, and Cancel Print <i>Note: The Hold Print switch should always be pressed before turning power off.</i>
Enable Print	Enable Print - Ready light comes on. - Hold Print light goes off. - Printing is resumed. - The switches that became operative in the Hold Print condition become inoperative.
Change LPI	Change LPI (Operational only after the Hold Print switch has been pressed and the Hold Print light comes on and remains on continuously.) - Pressing Change LPI once causes the 8 LPI light to come on. - Eight lines of information per inch are printed. (If the Double Space light is also on at this time, only four lines per inch are printed.) - Pressing Change LPI a second time causes the 8 LPI light to go off. - With the 8 LPI light off, six lines of information per inch are printed. (If the Double Space light is on at this time, only three lines per inch are printed.) <i>Note: If your printer is operating in SCS mode (indicated by the Ready light blinking while the 3287 is in the hold print condition, the LPI setting is controlled by the System Controlling Unit; the change LPI switch has no effect at this time.</i>
Set Alternate	Set Alternate (Operational only after the Hold Print switch has been pressed and the Hold Print light comes on), This puts the switches on your printer into alternate operation (the Hold Print light blinks on and off at this time). You can use the switches (in the unshaded area of the following illustration) to specify how many print positions you want your printer to print on a print line. (For more details, refer to "Setting the Maximum Print Position", in Chapter 3 of the <i>3287 Printer Models 1 and 2 Operator's Guide</i>.

Switch	What should take place -
Change Space	Change Space (Operational only after the Hold Print switch has been pressed and the Hold Print light comes on and remains on continuously.) ● Pressing the Change Space switch once causes the Double Space light to come on. ● A double space occurs between lines of print. <pre> 00000 00000 00000 00000 00000 00000 00000 00000 00000 </pre> } double spacing (Double Space light is on) <i>Note: If the 3287 Printer is operating in SCS mode, the Change Space switch is inoperative.</i> ● Pressing the Change Space switch a second time causes the Double Space light to go off. ● A single space occurs between lines of print. <pre> 00000 00000 00000 00000 00000 00000 00000 00000 00000 </pre> } single spacing (Double Space light is off)
PA1	PA1 This switch is operational only when <i>all</i> of the following conditions are present: 1. <i>Your printer has the SCS Support feature installed.</i> 2. Your printer is in the hold print condition, indicated by the Hold Print light being on continuously. (<i>Press the Hold Print switch</i> to put your printer in this condition.) 3. <i>Your printer is operating in SCS mode (indicated by the Ready light blinking while the 3287 is in the hold print).</i> 0 9 is displayed if your printer is not in SCS mode at this time. When you press the PA (Program Attention) 1 switch, the following takes place: 1. 6 1 is displayed on the Status Indicator. 2. Your printer sends a signal to the System Controlling Unit to start a program (which has been entered in the System Controlling Unit by your programming personnel). When the signal is received by the System Controlling Unit, the 6 1 disappears from the Status Indicator. <i>Note: If 6 1 does not disappear, the System Controlling Unit never started a program. Check with your programming personnel to see if the problem is with the System Controlling Unit or with your operation.</i>
Change Case	Change Case (Operational only after the Hold Print switch has been pressed and the Hold Print light comes on and remains on continuously). ● Pressing Change Case once causes the Dual Case light to come on. ● With the Dual Case light on, your printer should print in upper and lowercase characters. ● Pressing Change Case a second time causes the Dual Case light to go off. ● With the Dual Case light off, your printer should print only uppercase alphabetic characters (all capital letters). <i>Note: If your printer is operating in SCS mode (indicated by the Ready light blinking when the 3287 is in hold print condition), the Case is controlled by the System Controlling Unit. If your printer has ASCII, APL, or Katakana character sets, this switch is not functional.</i>
PA2 (continued)	PA2 This switch is operational only when <i>all</i> of the following conditions are present: 1. <i>Your printer has the SCS Support feature installed.</i> 2. Your printer is in the hold print condition, indicated by the Hold Print light being on continuously. (<i>Press the Hold Print switch</i> to put your printer in this condition.)

Switch

What should take place -

(continued) PA2	3. <i>Your printer is operating in SCS mode (indicated by the Ready light blinking while the 3287 is in the hold print condition). 0 9 is displayed if your printer is not in SCS mode at this time.</i> When you press the PA (Program Attention) 2 switch, the following takes place: 1. 6 2 is displayed on the Status Indicator. 2. Your printer sends a signal to the System Controlling Unit to start a program (which has been written and put into the System Controlling Unit by your programming personnel). When the program has completed, the 6 2 disappears from the Status Indicator. <i>Note: If 6 2 does not disappear, the System Controlling Unit never started a program. Check with your programming personnel to see if the problem is with the System Controlling Unit or with your operation.</i>
Form Feed	Form Feed This switch is operational only when both of the following conditions are present. 1. <i>Your printer has either the Page Length Control feature or the SCS Support feature installed.</i> 2. Your printer is in the hold print condition, indicated by the Hold Print light being on continuously. (<i>Press the Hold Print switch</i> to put your printer in this condition.) When you press the Form Feed switch, the printer advances the paper forms until the first print line of the next page is reached. <i>Note: If your printer is operating in SCS mode (indicated by the Ready light blinking when the 3287 is in the hold print condition), the forms advance is controlled by the System Controlling Unit.</i>
Buffer Reprint	Buffer Reprint This switch is operational only when both of the following conditions are present: 1. Your printer has the 3274/3276 Attachment feature installed. 2. Your printer is in the hold print condition, indicated by the Hold Print light being on continuously. (<i>Press the Hold Print switch</i> to put your printer in this condition.) <i>Note: Pressing the Buffer Reprint switch (under certain conditions) causes your printer to reprint the message that was in progress. 0 8 or 6 7 is displayed at this time. For more details, refer to "Buffer Reprint", in Chapter 3 of the IBM 3287 Printer Models 1 and 2 Operator's Guide.</i>
Setup	Setup (Operational only after the Hold Print switch has been pressed and the Hold Print light comes on and remains on continuously.) • An "H" is printed each time you press the switch. Continuous "Hs" are printed if you keep the switch pressed, up to the maximum print position that you have set into the printer.
Index	Index (Operational only after the Hold Print switch has been pressed and the Hold Print light comes on and remains on continuously.) • The paper advances upward one line (if you continue to hold the switch in the Index position, the paper continues to advance upward).
Reset	Reset • If the Check light is on, pressing this switch resets the error by: 1. Turning off the Check light 2. Resetting the Status Indicator

Switch

What should take place -

Cancel Print	Cancel Print This switch is operational only when both of the following conditions are present: 1. Your printer has the SCS support feature installed and is printing SCS data. 2. Your printer is in the Hold Print condition, indicated by the Hold Print light being on continuously. (<u>Press the Hold Print switch</u> to put your printer in this condition.) If you press the Cancel print switch while the printer is printing a message from the control unit 5 9 is displayed on the Status Indicator, and printing stops. The 5 9 disappears, and printing is resumed when the control unit sends another message. If you press the Cancel Print switch when the printer is not printing SCS data, 0 9 is displayed, indicating an error.
Test	Test • The 3287 built-in automatic test runs. • The Test light comes on, together with other lights.
Power Switch	(On) • Power to the printer is turned on. • The 3287 runs built-in automatic test (indicated by the Test light coming on). • The fan on the right rear side of the printer starts. (Off) • Power to the printer is turned off. (No printing can take place.) <i>Note: Press the Hold Print Switch before turning power off.</i>
(Selector Switches) 	These switches are operational only if your 3287 Printer is equipped with the Page Length Control or the SCS feature. • This switch determines the maximum number of print lines on a page, up to 99. (For example, when it is set to 03, only three lines should be printed on a page.) (For details, refer to "Setting the Page Length", in Chapter 3 of the <i>3287 Printer Models 1 and 2 Operator's Guide</i>.) <i>Note 1: If your printer is operating in SCS mode (indicated by the Ready light blinking while the 3287 is in hold print condition), the printer advances the paper, using the values specified by the System Controlling Unit. However, the Selector Switch (if pressed) value is read and stored for printing non-SCS data.</i> <i>Note 2: The Selector Switches are present on the Stage 2 Printer only if the printer has the Page Length Control feature.</i>

Printing Problems (Stage 1 and Stage 2 Printers)

Caution: When lifting the covers to check the ribbon, the printhead, etc., follow the instructions shown in Figure 5 (Stage 1 Printers) or Figure 6 (Stage 2 Printers).

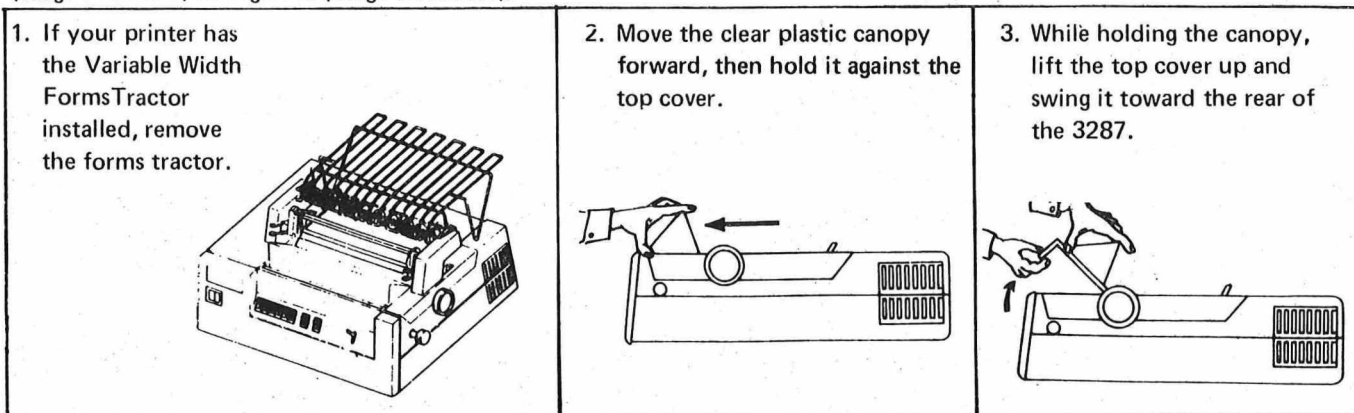


Figure 5. 3287 Printer (Stage 1)

Stage 2 Printers

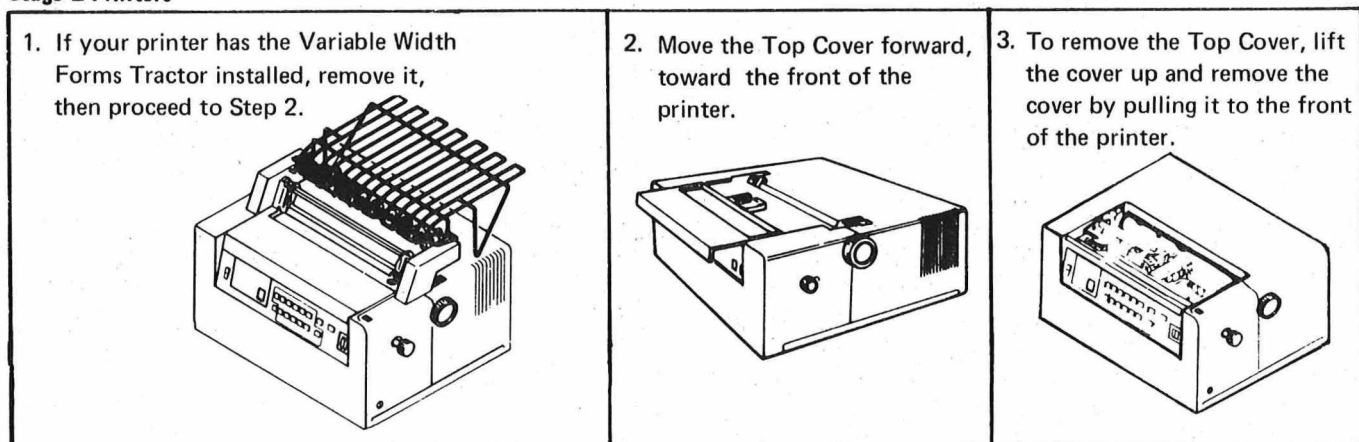


Figure 6. 3287 Printer (Stage 2)

How to use this section

1 If you have this print problem:

2 Check the following.

3 Then do this:
(Whenever you are requested to press the Test switch, be sure the paper in the printer is at least 203.2 mm (8-inches) wide and 1.8 meter (6 feet) long to provide enough space for the test printout.)



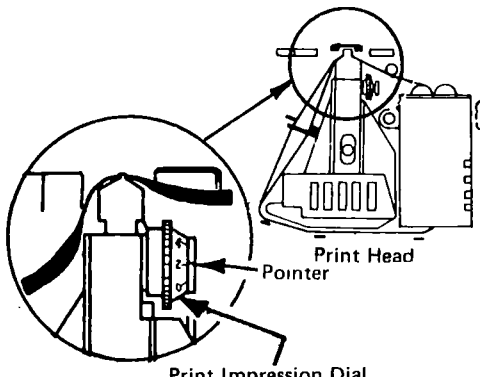
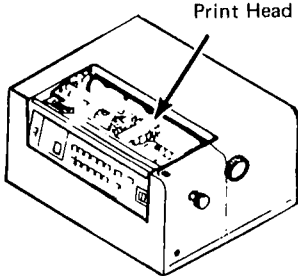
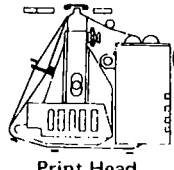
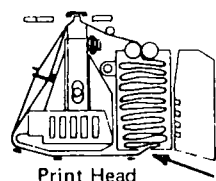
Print Problem



Check the following:



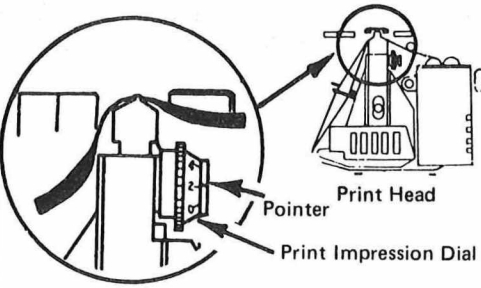
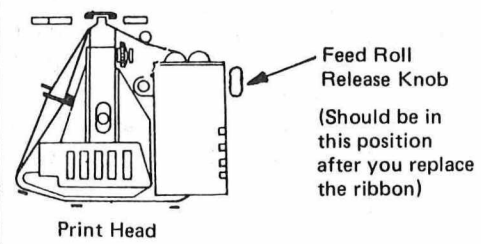
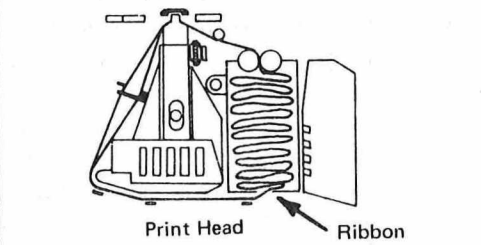
Then do this -

Printing is too light.	Is the Print Impression Dial set correctly?  Note: This dial is set to the lower numbers for single-part forms and to the higher numbers for multipart forms.	<u>Press the Hold Print switch</u> to stop the printer, rotate the Print Impression Dial one number towards "0", then operate the printer (press Enable Print). If the printing is still too light, stop the printer and rotate the dial one more number toward "0", then operate the printer. Repeat this until you get legible printing. If you still cannot get legible printing, do the following: 1. Fill out an Operator's Trouble Report. 2. Call the 3287 service representative.
	Is the ribbon worn out?	Replace the ribbon. (See Chapter 3 of <i>IBM 3287 Printer Models 1 and 2 Operator's Guide</i> for the procedure for replacing the ribbon.)
	Is the ribbon advancing? You can see if the ribbon is advancing by stopping the printer by pressing the <u>Hold Print switch</u>, then by physically taking hold of the print head and moving it back and forth across the platen.  The ribbon should advance each time you move the print head back and forth.	If it is not advancing, do the following: 1. Make sure that the Feed Roll Release knob is in the vertical position, as shown.  Print Head Feed Roll Release Knob (Should be in this position after you replace the ribbon) 2. Make sure that the ribbon is installed and threaded properly.  Print Head Ribbon 3. If you still have the problem (if the ribbon still does not advance), do the following: a. Fill out an Operator's Trouble Report. b. Call the 3287 service representative.
	If none of the preceding solves the problem . . .	1. Fill out an Operator's Trouble Report. 2. Call the 3287 service representative.

Print Problem

Check the following:

Then do this -

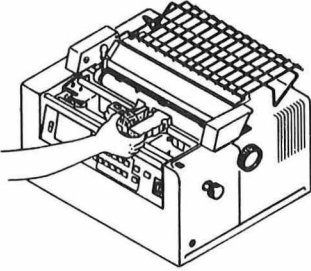
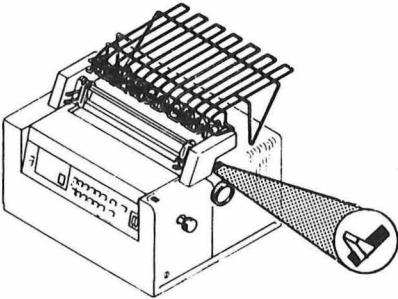
Printing is too heavy or smudged.	Is there a paper jam? Is the Print Impression Dial set correctly?  <i>Note:</i> This dial is set to the lower numbers for single-part forms and to the higher numbers for multipart forms. If none of the preceding solves the problem . . .	If so, remove the paper jams. <u>Press the Hold Print switch</u> to stop the printer, rotate the Print Impression Dial one number towards "8", then operate the printer (press Enable Print). If the printing is still too heavy, stop the printer and rotate the dial one more number toward "8", then operate the printer. Repeat this until you get legible printing. If you still cannot get legible printing, do the following: 1. Fill out an Operator's Trouble Report. 2. Call the 3287 service representative.
Print ribbon is jamming.	Is the Feed Roll Release knob in the vertical position, as shown?  Is the ribbon torn or are the edges of the ribbon frayed? Is the ribbon threaded properly, as shown? 	If not, put the knob in the vertical position; then try to operate the 3287. If so, replace the ribbon; then try to operate the 3287. (See Chapter 3 of the IBM 3287 Printer Models 1 and 2 Operator Guide for Procedures for replacing the ribbon.) If not, thread the ribbon as shown; then try to operate the 3287.

(continued)

Print Problem

Check the following:

Then do this -

(continued) Print ribbon is jamming.	Does the print ribbon advance smoothly? You can check this by stopping the printer by pressing the Hold Print switch, then by physically taking hold of the print head and moving it back and forth across the platen.  The ribbon should advance smoothly each time you move the print head back and forth across the platen.	If the ribbon does not advance smoothly (or if it does not advance at all), do the following: 1. Fill out an Operator's Trouble Report. 2. Call the 3287 service representative.
	If none of the preceding solves the problem	1. Fill out an Operator's Trouble Report. 2. Call the 3287 service representative.
Prints without paper (Printing continues after the printer has run out of paper.)	Is the Form Release Lever in the forward position? 	If not, move it forward, then try to operate the printer. If it is already in the forward position, do the following: 1. Fill out an Operator's Trouble Report. 2. Call the 3287 service representative.
Unusual characters are printed.	●  (Error Graphic symbol) is printed within a message printout. Begin at step 1. ● X is printed in print position 1 of the line following a message printout. Begin at step 1. ● — is printed within a message printout. Begin at Step 2. ● Unwanted characters are printed within a message printout. Begin at Step 2.	1. Contact the control unit operator and request the data be retransmitted. 2. Contact the System Programming Personnel for assistance. 3. If there is no problem at the control unit, keep the printout of the unusual characters for the 3287 service representative and do the following: a. Press the Test switch to obtain a printout (save this for the service representative). b. Fill out an Operator's Trouble Report. c. Call the 3287 service representative.
Print head is stuck (Print head does not return to the left side of the printer.)	No checking required.	1. Turn power off <i>immediately</i>. 2. Unplug the power cord. 3. Fill out an Operator's Trouble Report. 4. Call the 3287 service representative.

Miscellaneous Problems

How to use this section:

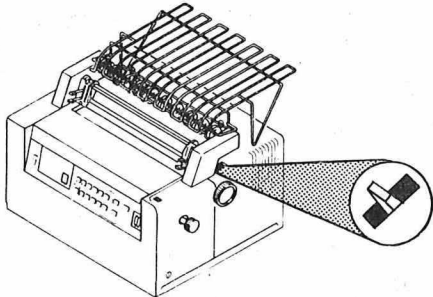
Find the problem you have, in this column.

Check the Following

3 Then take the action described in this column.



Problem

"Dead" printer (No lights, no action)	1. Is the electrical power cord plugged in? 2. Is the Power switch in the ON position? 3. Is there electrical power at the receptacle that your printer is plugged into? (You can check this quickly by plugging in another device that you know is working properly, such as a lamp.)	If the answer is YES to all three checks and if the printer still does not work, do the following: 1. Turn power off <i>immediately</i>. 2. Unplug the power cord. 3. Fill out an Operator's Trouble Report. 4. Call the 3287 service representative.
Audible alarm does not stop.	No checking required.	1. <u>Press the Hold Print switch.</u> 2. Does the alarm stop? - YES - Try to resume normal operation. - NO - a. Push the Test switch. b. Does the alarm stop? - YES - Try to resume normal operation. - NO - Turn power off at the printer, fill out the Operator's Trouble Report, then call the 3287 service representative.
Unusual problems • Unusual noises • Odors (burning smell) • Excessive heat • Fan is not running. • Print head is stuck (it does not return to the left side of printer).	No checking required.	1. Turn power off <i>Immediately</i>. 2. Unplug the power cord. 3. Fill out an Operator's Trouble Report. 4. Call the 3287 service representative.
Paper is jamming. (This applies to printers with or without the Variable Width Forms Tractor Unit.)	Is the Form Release Lever in the Forward position? 	If not, move it forward, then try to operate the printer.

Problem

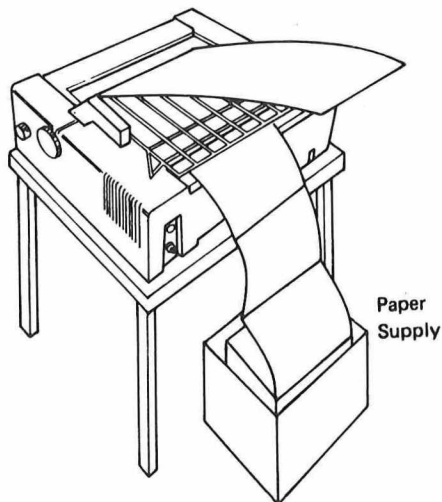
Paper is jamming.

3287 Printer
with Variable
Width Forms
Tractor

Check the following:

Check to see that:

- Paper box is aligned with the printer.
- Paper feeds evenly up into the printer.
- Printed paper forms coming out of the printer do not interfere with paper going into the printer.
- Paper coming out of the box does not drag on the sides of the box.



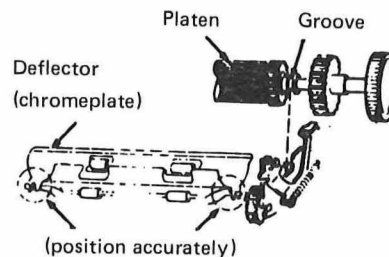
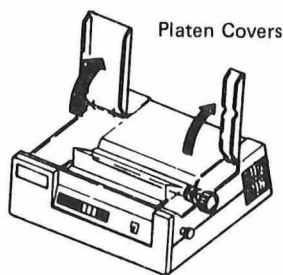
(If you continue having problems with the paper feeding out of the box, remove the paper from the box.)

(For more details on how the paper should be installed, refer to "Loading Paper Forms with the Variable Width Forms Tractor", in Chapter 4 of *IBM 3287 Printer Models 1 and 2 Operator's Guide*.)

Stage 1 only

Lift up the platen covers and check to see that:

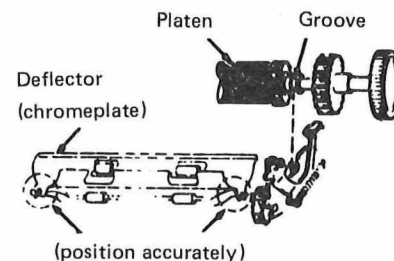
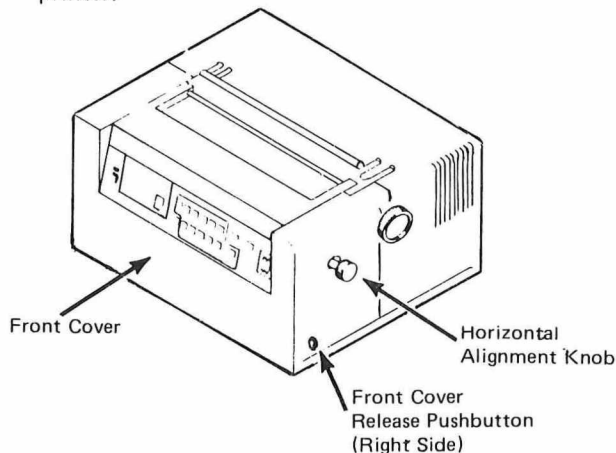
- Both ends of the deflector plate rest on the small tabs
- The platen is seated tightly on both ends of the printer



Stage 2 only

Press the front cover release pushbuttons, slide the cover forward and check to see that:

- Both ends of the deflector plate rest on the small tabs.
- The platen is seated tightly on both ends of the printer.



(continued)

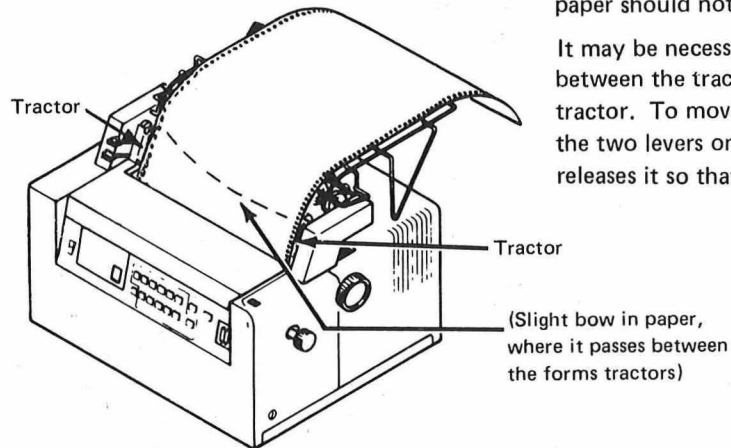
Problem

Check the following:

(continued)

Paper is jamming:

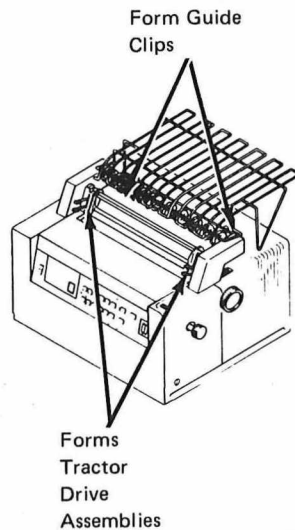
3287 Printer with
Variable Width
Forms Tractor



Check to see that:

- There is a slight bow where the paper goes between the forms tractors, but the slack in the paper should not be excessive.

It may be necessary to reposition the paper between the tractors by moving the right tractor. To move the tractor, simply squeeze the two levers on the front of the tractor; this releases it so that you can reposition it.

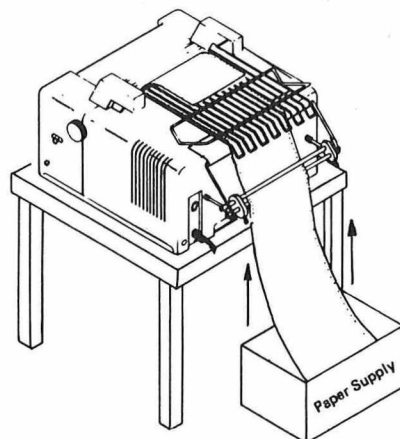


Check to see that:

- The Form Guide Clips are adjusted properly.
- To avoid skewing, tearing or enlarging the margin punched holes, or uneven feeding of the paper forms, ensure that the paper forms path is parallel to, and even with, the tractor drive assemblies. To obtain this condition, adjust the forms guide clips or reposition the paper forms supply, located behind the printer.

Paper is jamming:

3287 Printer with
Friction Feed
Paper Handling
Device (Using
continuous feed
forms)



Check to see that:

- Paper box is aligned with the printer.
- Paper feeds evenly up into the printer.
- Printed paper forms coming out of the printer do not interfere with paper going into the printer.
- Paper coming out of the box does not drag on the side of the box.

(If you continue having problems with the paper feeding out of the box, remove the paper from the box.)

For more details on how the paper should be installed, refer to "Loading Paper Forms with the Friction Feed Device", in Chapter 4 of *IBM 3287 Printer Models 1 and 2 Operator's Guide*.)

(continued)

Problem**Check the following:**

(continued)

Paper is jamming:

3287 Printer with
Friction Feed
Paper Handling
Device (Using
continuous feed
forms).

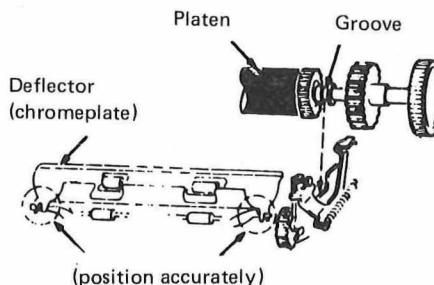
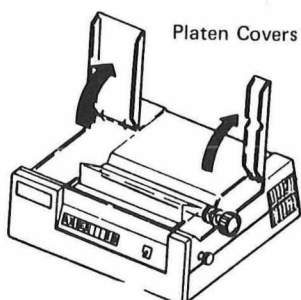
Stage 1 only

Check to see that:

Both the platen and the deflector plate are seated tightly, on both ends of the printer (you must lift up the platen covers to check this).

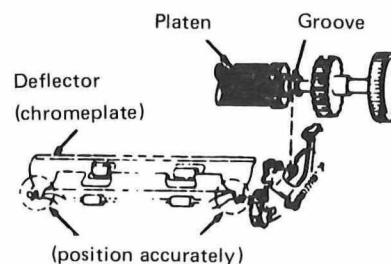
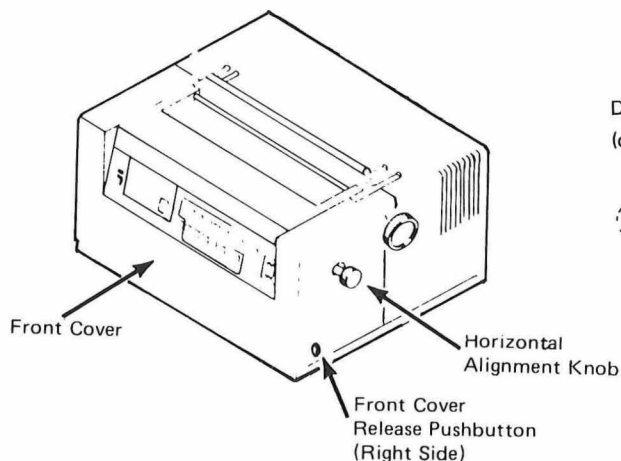
Lift up the platen covers and check to see that:

- Both ends of the deflector plate rest on the small tabs.
- The platen is seated tightly on both ends of the printer.

**Stage 2 only**

Press the front cover release pushbuttons,
slide the cover forward and check to see
that:

- Both ends of the deflector plate rest on the small tabs.
- The platen is seated tightly on both ends of the printer.



(continued)

Problem

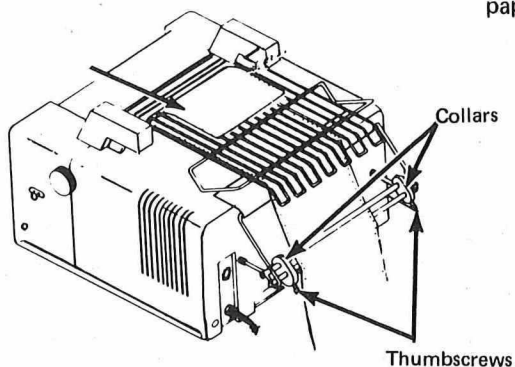
Check the following:

(continued)

Paper is jamming:
3287 Printer with
Friction Feed
Paper Handling
Device (Using
continuous feed
forms).

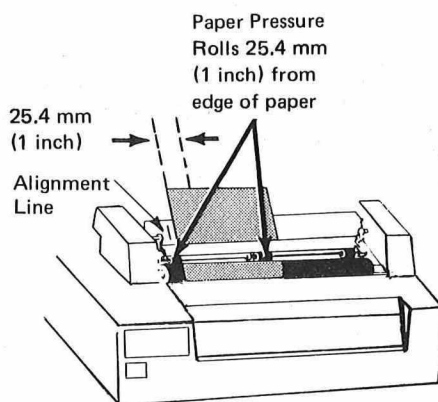
Check to see that:

- The collars are tight on the shaft.
- The collars are positioned close to the edge of the paper.
- The collars are not positioned so close to the edge of the paper that they interfere with the paper feeding.



Check to see that:

- The paper pressure rolls are down on the paper.
- The left edge of the paper is on the alignment line that is engraved in the paper guide plate, and against the alignment block on the rear paper guide plate.
- There is a paper pressure roll approximately 25.4 mm (1 inch) from the edge of each side of the paper (adjust the rolls, if needed).



(continued)

MISC.

Problem

Check the following:

(continued)

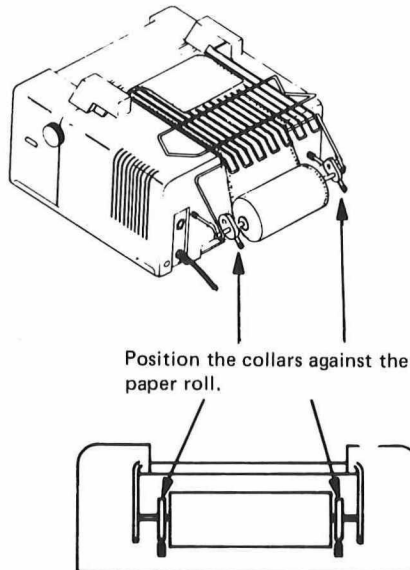
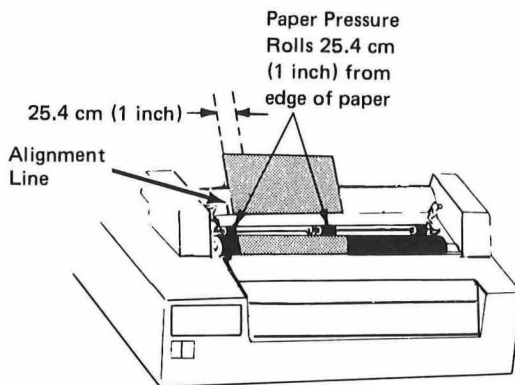
Paper is jamming:

3287 Printer with Friction Feed Paper Handling Device (Using continuous feed forms).

Check to see that:

- The paper pressure rolls are down on the paper.
- The left edge of the paper is on the alignment line that is engraved in the paper guide plate, and against the alignment block on the rear paper guide plate.
- There is a paper pressure roll approximately 25.4 mm (1 inch) from the edge of each side of the paper (adjust the rolls, if needed).

(For more details on how roll paper should be installed, refer to "Loading Roll Paper", in Chapter 4 of the *IBM 3287 Printer Models 1 and 2 Operator's Guide*.)



Rear View of Printer

Check to see that:

- The paper roll is positioned for straight paper feeding.
- The collars are tight on the shaft.
- The collars are positioned close to the paper roll.

IBM 3287 Printer Operator's Trouble Report

A properly filled out IBM 3287 Printer Operator's Trouble Report GX27-2923 can aid the 3287 service representative to isolate and solve your problem(s). A pad of 25 of these forms is provided with the printer, for your use. If you need additional forms, contact your IBM representative or the IBM branch office nearest you.

GX27-2923-1
Printed in U.S.A.

IBM 3287 Printer Models 1 and 2 - Operator's Trouble Report

Unit Identification (serial number) _____
Unit Location _____
Date and Time _____
Reported by _____

1 Put an "X" in the box (or boxes) that describes the trouble you are having.

- ☐ A. Unusual noise, odor, smoke, or excessive heat.
☐ B. Cooling fan not blowing air from the side of the printer.
☐ C. Print head stays at right margin.
☐ D. Severe ribbon jam.

If any of these conditions are present, turn the printer power off IMMEDIATELY, unplug the power cord, and call the 3287 service representative; otherwise, continue with this report.

- ☐ E. Ribbon not feeding properly.
☐ F. Paper not feeding properly.
☐ G. Printing error (describe error in H below).
☐ H. Other (describe problem): _____

2 Show which indicators were on when the trouble occurred (put an "X" in the circle of each light that was on). Also, write in any digits that were displayed on the Status Indicator when the trouble occurred.

☐ Ready	☐ CU Signal	☐ Check	☐ Test	(Status Indicator)
☐ Hold Print	☐ BLP1	☐ Double Space	☐ Dual Case	

3 A. Press the Test switch.

- B. Show which lights are on after the test is finished (after printing stops); by putting an "X" in the circle of each light that is on. Also, write in any digits that are displayed on the Status Indicator.
- C. Turn power off at your printer by (1) pressing the Hold Print switch, then (2) pressing the Power switch to 0 (Off). Have the test that was just printed and this Trouble Report Form ready for the service representative.

☐ Ready	☐ CU Signal	☐ Check	☐ Test	(Status Indicator)
☐ Hold Print	☐ BLP1	☐ Double Space	☐ Dual Case	

IBM Corporation, Publications Center, Dept. E02, P.O. Box 12195, Research Triangle Park, N.C. 27709

Offline Test Printout

This is an example of the printout (reduced in size) that is printed at your 3287 Printer whenever you press the TEST switch.

(Before you begin running this test, be sure you have sufficient paper in your printer. Use paper that is at least 203.2 mm (8 inches) wide and at least 1.8 meter (6 feet) long.

Note: This printout is an example only; the contents of the printout from your machine may be different.

Test Printout

```
000 09561F1E 003A8001 00A8H001 0A2A4C00
010 0040003E 01010017 02994508 0099H004
020 00H000C1 13A500A4 0000104 00000400
030 00622000 0029041A 1100101 1100FJC
040 00010000 00F100EF 00920200 000013HC
050 40001105 15002090 00000F15 00000000
060 002F00FF 01090070 00990000 04000000
070 00000000 00900070 00F01010 00040005
080 00H50000 00900070 F10002 00900411
090 0001191A 00000070 00000000 00000000
0A0 00000000 00000000 00000000 00000000
0B0 00CC0000 FFF1201A 00001540 2A8A2V00
0C0 00020400 7F001090 03000000 00000000
0D0 00000000 00000070 00000000 00000000
0E0 00000000 00000070 00000000 000400C0
0F0 00000000 00000070 00000000 03000000
100 00000000 00000070 00000000 00000000
110 00000000 00000070 00000000 00000000
120 00000000 00000000 00000000 00000000
130 00000000 00000000 00000000 00000000
140 00000000 00000070 00000000 00000000
150 78CE1F1B 11848493 13AC0294 2A1A4C00
160 10C34304 0000F1F0 7C0C1212 2B3A0C00
170 00000000 00000070 00000000 00000000
180 00000000 00000070 01000000 00000000
190 00000000 00000000 00000000 00000000
1A0 00000000 00000070 00000000 00000000
1B0 19000000 00000070 00197A10 00001E00
1C0 00000000 00000000 00000000 00000000
1D0 00000000 00000070 00300300 00000000
1E0 00201E00 00000100 00007F70 000007EA
1F0 1F3C1E00 000000E2 00040000 000007EA
200 FCFEA1A2 A3A4A5A6 A7AB1B32 090D3516
210 30A9AAAB ACADAFAF B0B1191A BF0CBE36
220 3114E2B3 B4B5B6B7 B8B91733 2E2F0B10
230 20212223 24252627 2829342C 2D121113
240 A0A1A2A3 A4A5A6A7 A81B3209 0D3516FC
250 FC000000 00000000 00000000 00000000
260 00000000 00000000 00000000 00000000
270 00000000 00000000 00000000 00000000
280 0011C3C4 C5C6C7C8 C9CA10CC CDCCECF0
290 D1D2D3D4 D5D6D7D8 D9DA10DC DDEDFE0
2A0 E1E2E3E4 E5E6E7E8 E9EA10EC EDEEFF00
2B0 F1F2F3F4 F5F6F7F8 F9FA10FC FDFEFF00
2C0 02030405 06070809 0A0B0C0D 0E0F1001
2D0 01000000 00000000 00000000 00000000
2E0 00000000 00000000 00000000 00000000
2F0 00000000 00000000 00000000 00000000
300 FC30A9AA AKACADA EAF0B119 1AF0CBE
310 363114B2 B3B4B5B6 B7B8B917 332E2F0B
320 1B202122 23242526 27282934 2C2D1211
330 13A0A1A2 A3A4A5A6 A7AB1B32 090D3516
340 30A9AAAB ACADAFAF B0B1191A BF0CBE36
350 FC000000 00000000 00000000 00000000
360 00000000 00000000 00000000 00000000
370 00000000 00000000 00000000 00000000
380 01C1C2C3 C4C5C6C7 C8C9CABC CCDCCECF
390 D0D1D2D3 D4D5D6D7 D8D9DADB DCDDEDF
3A0 E0E1E2E3 E4E5E6E7 E8E9EAER ECEDEEFF
3B0 F0F1F3F4 F5F6F7F8 F9FA10FC FDFEFF00
3C0 01020304 05060708 090A0B0C 0D0E0F10
3D0 01000000 00000000 00000000 00000000
3E0 00000000 00000000 00000000 00000000
3F0 00000000 00000000 00000000 00000000

3C0 92A00000 FFFFRBA7 0000RA3F F4300000
3D0 00000000 00000000 00000000 0000F623
3E0 00000000 00000000 00000000 00000000
3F0 00000000 00000000 00000000 00000000
```

```
0000 00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F
0010 10 11 12 13 14 15 16 17 18 19 1A 1B 1C 1D 1E 1F
0020 20 21 22 23 24 25 26 27 28 29 2A 2B 2C 2D 2E 2F
0030 30 31 32 33 34 35 36 37 38 39 3A 3B 3C 3D 3E 3F
0040 40 41 42 43 44 45 46 47 48 49 4A 4B 4C 4D 4E 4F
0050 50 51 52 53 54 55 56 57 58 59 5A 5B 5C 5D 5E 5F
0060 60 61 62 63 64 65 66 67 68 69 6A 6B 6C 6D 6E 6F
0070 70 71 72 73 74 75 76 77 78 79 7A 7B 7C 7D 7E 7F
0080 00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F
0090 10 11 12 13 14 15 16 17 18 19 1A 1B 1C 1D 1E 1F
00A0 20 21 22 23 24 25 26 27 28 29 2A 2B 2C 2D 2E 2F
00B0 30 31 32 33 34 35 36 37 38 39 3A 3B 3C 3D 3E 3F
00C0 40 41 42 43 44 45 46 47 48 49 4A 4B 4C 4D 4E 4F
00D0 50 51 52 53 54 55 56 57 58 59 5A 5B 5C 5D 5E 5F
00E0 60 61 62 63 64 65 66 67 68 69 6A 6B 6C 6D 6E 6F
00F0 70 71 72 73 74 75 76 77 78 79 7A 7B 7C 7D 7E 7F
0100 00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F
0110 10 11 12 13 14 15 16 17 18 19 1A 1B 1C 1D 1E 1F
0120 20 21 22 23 24 25 26 27 28 29 2A 2B 2C 2D 2E 2F
0130 30 31 32 33 34 35 36 37 38 39 3A 3B 3C 3D 3E 3F
0140 40 41 42 43 44 45 46 47 48 49 4A 4B 4C 4D 4E 4F
0150 50 51 52 53 54 55 56 57 58 59 5A 5B 5C 5D 5E 5F
0160 60 61 62 63 64 65 66 67 68 69 6A 6B 6C 6D 6E 6F
0170 70 71 72 73 74 75 76 77 78 79 7A 7B 7C 7D 7E 7F
0180 00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F
0190 10 11 12 13 14 15 16 17 18 19 1A 1B 1C 1D 1E 1F
01A0 20 21 22 23 24 25 26 27 28 29 2A 2B 2C 2D 2E 2F
01B0 30 31 32 33 34 35 36 37 38 39 3A 3B 3C 3D 3E 3F
01C0 40 41 42 43 44 45 46 47 48 49 4A 4B 4C 4D 4E 4F
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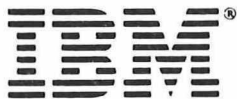
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